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New patent claims:

A method of increasing and qualitatively modifying the content of flavonoids and phenolic constituents in grapevines, cherries, plums, sloes, blueberries, strawberries, citrus fruit, pawpaw, red cabbage, broccoli, Brussels sprouts, kale, carrots, parsley, celery/celeriac, onions, garlic, tea, coffee, cacao, maté, hops, soya, oilseed rape, oats, wheat, rye, Aronia melanocarpa or Ginkgo biloba, which comprises treating the plants with an acylcyclohexadione [sic] of the formula I

RO R'

- where R is hydrogen or  $C_1$ - $C_6$ -alkyl and R' is  $C_1$ - $C_6$ -alkyl or  $C_3$ - $C_6$ -cycloalkyl, or with a suitable salt of I.
- A method as claimed in claim 1, wherein the plants are treated with an acylcyclohexadione [sic] of the formula II and/or the formula III

40 3. A method as claimed in claim 1 or 2, wherein the content of flavonoids and phenolic constituents of grapevines is increased and qualitatively modified.

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4. A method as claimed in any of claims 1, 2 or 3, wherein the content of flavonoids with an unsubstituted C atom in the 3-position, and of the oligomers and polymers of these flavonoids, is increased.

5. The use of grapevines, cherries, plums, sloes, blueberries, strawberries, citrus fruit, pawpaw, red cabbage, broccoli, Brussels sprouts, kale, carrots, parsley, celery/celeriac, onions, garlic, tea, coffee, cacao, maté, hops, soya, oilseed rape, oats, wheat, rye, Aronia melanocarpa or Ginkgo biloba, which have been treated with an acylcyclohexadione [sic] as set forth in claim 1 or 2, of parts of these plants or of products prepared with these plants (juices, teas, extracts, fermentation products and fermentation residues) for the preparation of curative compositions, health-promoting compositions or tonics for humans and animals, and of cosmetics.

6. An extract, juice, wine or press cake with an increased qualtitatively modified content of flavonoids and other phenolic constituents, obtainable from grapes of a red grapevine variety, the grapevine plant previously having been treated with at least one acylcyclohexadione [sic] of the formula I, II or III as set forth in claim 1 or 2.

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Method of generating plants with an increased content of flavonoids and phenolic constituents

## 5 Abstract

In a method for increasing the flavonoid content in plants, the plants are treated with growth-regulating acylcyclohexanediones of the formula I.